

I claim:

1. A rope cleat which comprises:

a base having a flat base surface;

an abutment means for gripping rope mounted on said base surface and having an abutment surface perpendicular to said base surface;

a first spindle having one end mounted on said base surface and extending perpendicularly away from said base surface.

a first cam rotatably mounted on said first spindle;

said first cam having a first cam surface perpendicular to said base surface and convex toward said abutment surface;

said first cam operably arranged to permit positioning a rope between said first cam surface and said abutment surface and to provide that when tension is applied to said rope in one direction, said rope is seized between said cam surface and abutment surface by said cam rotating toward said abutment and when tension is applied to said rope in an opposite direction, said rope is released from between said cam surface and and abutment surface permitting withdrawal of said rope;

a cover means for retaining said rope between said abutment surface and said cam surface when said cover means is in a retain position and for permitting engagement and withdrawal of said rope from between said abutment surface and said cam surface when said cover means is in a release position.

2. The cleat of claim 1 wherein said cover means comprises:

a pedestal having one end secured to said base surface and extending perpendicularly away from said base surface;

a cover slidably engaging another end of said pedestal and operably arranged for sliding over said cam and abutment between said retain position and said release position.

3. The cleat of claim 1 wherein said cover means is rotatably mounted on one of:

(i) another end of said spindle;

(ii) on said abutment means; and

said cover is operably arranged to rotate between said retain and release positions.

4. The cleat of claim 3 wherein:

said cover means is rotatably mounted on said abutment means;

said cover means has one end which is rotatable over space between said abutment surface and cam surface and a tail end ;

a pin extending from said base surface on a side of said abutment opposite said cam providing that, when said rope is positioned between said abutment surface and said cam surface and looped around said abutment surface between said pin and said abutment, then when said cover means is rotated to said retain position, said tail end of said cover means extends over space between said pin and said abutment.

5. The cleat of claim 1 further comprising a spring means for biasing said first cam surface toward said abutment surface.

6. The cleat of claim 5 wherein said spring means is one of a torsion spring and a leaf spring.

7. The rope cleat of claim 5 wherein said spring means comprises a spring having one end coupled to an extended end of said spindle and another end engaging said cam.

9. The rope cleat of claim 1 further comprising:

a second cam mounted on another end of said spindle and operably arranged for rotation between said retain and release positions;

said second cam having a second cam surface perpendicular to said base surface and convex toward said abutment surface; and

said second cam surface operably arranged to permit positioning a rope between said second cam surface and said abutment surface providing that when tension is applied to said rope in one direction, said rope is seized between said second cam surface and abutment surface by said cam rotating toward said abutment; and when tension is applied to said rope in an opposite direction, said rope is seized by said first cam

10. The rope cleat of claim 5 further comprising spring means having one spring end abutting said first cam and a second spring end abutting said second cam operably arranged to bias said first cam surface toward said abutment means and said second cam surface toward said abutment means;

means for manually rotating said first and second cams away from said abutment.

11. The rope cleat of claim 8 wherein said abutment means comprises:

a first abutment having a first abutment surface facing said first cam surface;

a second abutment facing said second cam surface.

12. The rope cleat of claim 1 wherein:

said abutment means is a plurality of abutments, each having an abutment surface;

a plurality of cams;

a plurality of spindles;

a plurality of spindles;

each abutment surface facing at least one of said cams rotatably mounted on one of said spindles, respectively.

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13.. A rope cleat comprising:

a base having a base surface;

a first rope abutment mounted on said base surface and having a first abutment surface perpendicular to said base surface;

a second rope abutment mounted on said base surface and having a second abutment surface perpendicular to said base surface;

a first spindle having one end mounted on said base surface and extending perpendicularly away from said base surface.

a first cam rotatably mounted on said first spindle;

said first cam having a first cam surface perpendicular to said base surface and convex toward said first abutment surface;

said first cam operably arranged to permit positioning a rope between said first cam surface and said abutment surface and to provide that when tension is applied to said rope in one direction, said rope is seized between said cam surface and abutment surface by said cam rotating toward said first rope abutment and when tension is applied to said rope in an opposite direction, said rope is released from tension and can be removed from said cleat;

a second cam rotatably mounted on said first spindle;

said second cam having a second cam surface perpendicular to said base surface and convex toward said second abutment surface;

said second cam operably arranged to permit positioning a rope between said second cam surface and said second abutment surface and to provide that when tension is applied to said rope in one direction, said rope is seized between said second cam surface and second abutment surface by said second cam rotating toward said second rope abutment and when tension is applied to said rope in an opposite direction, said rope is released from tension and can be removed from said cleat;

sub 7 a second spindle having one end mounted on said base surface and extending perpendicularly away from said base surface;

said second spindle positioned to limit rotation of said first cam away from said first abutment and to limit rotation of said second cam away from said second abutment surface;

a spring positioned with one end abutting said first cam and another end abutting said second cam operably arranged to bias said first cam surface toward said first abutment surface and to bias said second cam surface toward said second abutment surface;

a first pedestal having one end secured to said base surface and extending perpendicularly away from said base surface;

a first cover slidably mounted on another end of said first pedestal and operably arranged to slide between a position where said rope is restrained from escaping from between said first abutment surface and said first cam surface by a first end of said first cover and a position where said rope is permitted to be engaged and withdrawn from between said first abutment surface and said first cam surface;

a second pedestal having one end secured to said base surface and extending perpendicularly away from said base surface;

2 Sub 7 a second cover slidably mounted on another end said second pedestal and operably arranged to slide between a position where said rope is restrained from escaping from between said second abutment surface and said second cam surface by a first end of said second cover and a position where said rope is permitted to be engaged and withdrawn from between said second abutment surface and said second cam surface.

Sub 12 14. The cleat of claim 13 wherein said first and second covers each have a second end opposite said respective first end operably arranged when said respective covers are in said position where said rope is restrained to extend over said base surface.

Sub 14 15. A rope cleat which comprises:

a base having a flat base surface;

an abutment means for gripping rope mounted on said base surface and having an abutment surface perpendicular to said base surface;

at least one spindle having one end mounted on said base surface and extending perpendicularly away from said base surface.

at least one cam;

each one spindle of said at least one spindle having only one cam of said at least one cam rotatably mounted on said each one spindle;

said one cam having a first cam surface perpendicular to said base surface and convex toward said abutment surface;

all of said at least one cam operably arranged to permit positioning a rope between said respective first cam surface and said abutment surface and to provide that when tension is applied to said rope in one direction, said rope is seized between said first cam surface of all of said at least one cam and abutment surface by all of said at least one cam rotating toward said abutment and when tension is applied to said rope in an opposite direction, said rope is released from between said first cam surface of all of said at least one cam and abutment surface permitting withdrawal of said rope;

a cover means for retaining said rope between said abutment surface and said cam surface when said cover means is in a retain position and for permitting engagement and withdrawal of said rope from between said abutment surface and said cam surface when said cover means is in a release position.

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16. A rope cleat which comprises:

a base having a flat base surface;

at least one pair of spindles, each spindle having one end mounted on said base surface and extending perpendicularly away from said base surface.

at least one pair of cams;

each spindle of said at least one pair of spindles having only one of said cams of said at least one pair of cams rotatably mounted on said each spindle;

each cam of each pair of cams having a cam surface perpendicular to said base surface and convex toward a cam surface of another cam of said each pair of cams;

said at least one pair of cams operably arranged to permit positioning a rope between said cam surfaces of each pair of cams to provide that when tension is applied to said rope in one direction, said rope is seized between said cam surfaces of each pair of cams and when tension is applied to said rope in an opposite direction, said rope is released from between said cam surfaces permitting withdrawal of said rope;

a cover means for retaining said rope between said cam surfaces of said at least one pair of cams when said cover means is in a retain position and for permitting engagement and withdrawal of said rope from between cams of said at least one pair of cams when said cover means is in a release position.

11. A rope cleat which comprises:

a base having a flat base surface;

an abutment means for gripping rope mounted on said base surface and having an abutment surface perpendicular to said base surface;

a first spindle having one end mounted on said base surface and extending perpendicularly away from said base surface.

a first cam rotatably mounted on said first spindle;

said first cam having a first cam surface perpendicular to said base surface and convex toward said abutment surface;

said first cam operably arranged to permit positioning a rope between said first cam surface and said abutment surface and to provide that when tension is applied to said rope in one direction, said rope is seized between said cam surface and abutment surface by said cam rotating toward said abutment and when tension is applied to said rope in an opposite direction, said rope is released from between said cam surface and and abutment surface permitting withdrawal of said rope;

~~a cover means for retaining said rope that has been looped around said abutment and extends in a direction from whence it came.~~

Adel F17